5. The date should be pushed to the very last of August or the first week in September in order to accommodate European botanists whose university duties would prevent attendance earlier.

6. A free excursion of reasonable length (say as far as Lake Superior) ought to be arranged for; to this, arrangements should be added whereby foreign delegates could secure special rates to our great attractions in the far west should they care to make such extended excursions.—LUCIEN M. UNDERWOOD, *Greencastle, Ind.*

NEWS AND NOTES.

MR. W. H. NORRIS describes in the *American Naturalist* for August the development of the ovule of *Grindelia squarrosa.*

MR. D. T. MACDOUGAL is arranging a collecting trip to Mexico. He will start early in January. Those desiring plants from this region can address him regarding the matter at LaFayette, Ind.

A NEW EDITION of Koch's "Synopsis Floræ Germaniæ" is to be published under the editorship of Prof. P. Ascherson. The Prussian Academy of Sciences has voted him 2,000 marks to carry on the work.

THE BOTANICAL DEPARTMENT in the Bohemian University at Prague has been strengthened by the appointment of Dr. A. Hansgirg, until now lecturer in the same institution, and Dr. R. von Wettstein, of Vienna, to professorships.

MR. F. V. COVILLE gives an interesting account of the Panamint Indians of California (Am. Anthrop. v. 351), in which there is much of botanical interest. The question as to what these desert Indians can find in the way of vegetable food is answered by a surprisingly long list of plants whose seeds are chiefly used.

IN THE LAST number of *Hedwigia* (heft 4, 1892) Dr. C. Warnstorf describes five new species of Sphagnum: *S. Labradorense* of the ACUTIFOLIA, from Labrador; *S. dasyphyllum* of the CUSPIDATA from Connecticut; *S. Orlandense* from Florida; *S. Mohrianum* and *S. Mobilense* from Alabama, the three latter of the SUBSECUNDA.

M. HENRY DOULIOT, preparator at the Museum of Natural History at Paris, is dead at the age of 38, from a disease contracted during a scientific expedition. M. Douliot had already aquired a wide reputation through his researches in the histology of the higher plants. His work has been largely in conjunction with M. Van Tieghem.

IN THE November GAZETTE, (p. 341) we inadvertently omitted mention of the fact that the Department of Agriculture was the body that Dr. Vasey represented at Genoa, in addition to the Smithsonian Institute. It is but just that this correction should be made since the Department was the financial authority for the mission.—L. M. UNDERWOOD.

AMONG THE REPORTS of the large scientific staff at work on the Government Experiment Farms at Ottawa, Canada, for 1891, just issued as an appendix to the report of the Minister of Agriculture, is one from Mr. James Fletcher, the Botanist. It is concerned chiefly with reporting concerning experiments with grasses, some of which are figured, and describing some of the most prevalent and dangerous weeds that Canadian farmers will be likely to encounter.

THE TECHNIQUE of celloidin inbedding will be found set forth *in extenso* in two recent articles; one by W. Busse in *Zeitschrift für wissenschaftliche Mikroskopie* VIII. 462–475; and the other in a series entitled Mikrotechnische Mittheilungen, by Ludwig Koch, of which the first installment appears in Pringsheim's *Jahrbücher für wissenschaftliche Botanik*, XXIV. 1–51, under the caption "Ueber Einbettung, Einschluss und Färben pflanzlicher Objecte."

A LIST of Ohio Uredineæ and a brief account of wheat scab, by Miss Freda Detmers, together with a short description of Lactuca Scariola, by C. E. Thorne, make up bulletin 44 of the Ohio Experiment Station. The list of rusts contains about 68 species. The hosts and localities are given, and also a few additional notes. There is evidence of a lack of careful proof reading, and the cuts illustrating Lactuca and wheat scab are wretchedly printed.

AN IMPORTANT monograph of one of the much neglected groups of lower plants, the Oscillarieæ, appears in the *Annales des Sciences Naturelles* VII, XV, p. 263–368, with five plates. This, with the earlier monograph of the heterocystic Nostocaceæ by Bornet and Flahault, gives tolerably complete facilities for the determination of these plants. If some one would now put into compact form an account of our American species with analytic keys it would be serviceable.

DR. BYRON D. HALSTED is soon to issue a century of weed-seeds. The seeds will be in convenient vials, held in a tray which is about the size of an herbarium sheet. Suitable printed labels are also distributed. This collection is designed to assist station botanists in determining the foul stuff in commercial seeds, and also for the use of seedsmen; but all botanists should be interested. The price per set is $10, which is far below the real cost, and Dr. Halsted may be addressed at the N. J. Experiment Station, New Brunswick, N. J.

MR. ERNEST WALKER, of New Albany, Ind., has made some interesting observations on the scattering of seeds by the pods of *Oxalis stricta*. In the proper condition, the least disturbance will cause the seeds to be expelled with considerable force, and thrown two or three feet. Mr. Walker finds that the outer seed-coat is the agent in this dissemination, being a translucent shining membranous envelope stretched tightly over the seed, suddenly and elestically turning inside out when it bursts. Further details can be had from Proc. Philad. Acad., 1892, p. 288.

THREE DISEASES of tomatoes grown under glass are described by Prof. L. H. Bailey (Bull. no. 43), as observed at the Cornell Experiment Station. The most serious one, called winter blight, appears to be of a bacterial nature. Growth is checked, the leaves show ill-defined yellowish spots, later turning dark, the leaf curls and becomes stiff, the edges drawing downwards, giving the plant a wilted appear-

ance. Common blight (Cladosporium fulvum) and root-galls, caused by nematodes, are also described and illustrated. The results of various preventive measures are given.

In a contribution to the physiology of collenchyma (Prings. Jahrb. f. wiss. Bot. xxiv. 145) Jonas Cohn finds that this tissue normally contains in the cell wall from 60 to 70 per cent. by weight of water as against 20–40 per cent. in bast and wood. He holds that Bokorny's deductions as to the water-conducting function of collencyhma are founded on inexact experimentation and that C. Müller's idea that this is a water-storing tissue is likewise unsatisfactory. He was unable, however, to discover the relation between the mechanical peculiarities and the watery contents of collenchyma, and therefore does not suggest any theory as to its function.

Mr. H. J. Webber and Mr. W. T. Swingle are now at Eustis, Lake county, Florida, where a laboratory is being erected and fitted up for conducting experimental work on the anatomy, physiology and pathology of subtropical economic plants. The first important task is to learn something of Citrus fruits. Mr. Swingle has been working on the diseases of Citrus for the last two years. These observers are now starting at the base of matter in the orange blight investigation, and are just starting experiments on the transpiration of healthy and diseased plants, coupled with a histological investigation of the leaf and conducting tissue of healthy and diseased limbs.

The University of Illinois lately completed a new building for the departments of botany, zoology and geology which was formally dedicated as "Natural History Hall" on November 16th.

The exercises included addresses upon the development of the natural history departments, by Professor T. J. Burrill; science and the American college, by President David S. Jordan, of Leland Stanford University; the laboratory as a necessary part of the college equipment, by Professor William Trelease, Director of the Shaw School of Botany; and the methods of geology, by Professor N. H. Winchell, State Geologist of Minnesota. The botanical laboratories are said to be admirably arranged and adapted to the needs of instruction and investigation.

Mr. Elliott Coues gives a good illustration in a recent number of *Science* (xx, p. 219) of the proper meaning of the expression "once a synonym, always a synonym," which we reproduce in part. He says: "Let there be a genus *Smithia* in botany. Let a genus *Jonesia* then be named. Let *Jonesia* then be found to be the same genus as *Smithia*. Then the name *Jonesia* 'lapses into synonymy' and can not be thereafter applied *to any other genus* in botany. Exactly the same principle holds for all specific names within their respective genera. Example: Let there be a *Rosa Smithi*. Let some one then name a *Rosa Jonesi*. Let *R. Jonesi* be considered to be the same species as *R. Smithi*. Then there can never be a *R. Jonesi;* that is to say, *no other species* of *Rosa* can be specified as *R. Jonesi*. But, of course, if any one discovers, after this reduction of *Jonesi* to a synonym of *Smithi*, that what had been called *R. Jonesi* is a good species, then *Jonesi* revives as the name of *that* species; and the fact that it had been (erroneously) regarded as a synonym of *Smithi* is no bar to its use in its original sense."